



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Dr. Folker Beck  
Examiner: Meredith Petravick  
Serial No.: 09/943,226  
Filed: 29 August 2001  
For: ROTARY CONVEYOR WITH FINGERS

Group Art Unit 3671  
(Atty. Ref. No. 08952-US)

Moline, IL 61265  
2 September 2003

**APPLICANT'S APPEAL BRIEF**

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22315-1450  
Sir:

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**Real Party in Interest**

The real party in interest is Deere & Company, a Delaware Corporation having its principle place of business in Moline, IL. Deere & Company became the real party in interest by an assignment last dated 23 August 2001, and recorded with the Patent Office on 29 August 2001, Reel 012142, Frame 0680.

**Related Appeals and Interferences**

The applicant is unaware of any related appeals and/or interferences.

**Status of Claims**

Claims 1-4, 7-10, and 12-17 are currently pending in the above-identified application. All the pending claims stand finally rejected, by the examiner. A correct copy of the claims is found in the attached appendix.

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### **Status of Amendments**

There are no outstanding amendments.

### **Summary of the Invention**

The rotary conveyor 10 comprises a drum-shaped shell 12 over whose length and circumference are distributed three rows of openings 14 offset 120° relative to one another, through which extend fingers 16. Between the ends of the crank arms 28 and 30 extends a non-rotating axle 32 which is parallel to the central axis of the shell 12. The axle 32 is eccentric to the central axis of the shell. The finger supports 34, 36 and 38 comprise a body 40 with rectangular cross-section and three annular bearings 42 which enclose the axle 32. The annular bearings are mounted on the ends and middle sections of the finger supports 34, 36 and 38. Fingers 16 are distributed over the length of the finger supports 34, 36 and 38. The inside end of each the finger 16 is provided with a screw thread which is screwed into a corresponding thread in the body 40. The attachment of the fingers 16 to the body 40 is secured by a locking nut 44. When the shell 12 rotates, the fingers 16, which fit and can move in the openings 14 by virtue of slide bearings 46, are carried along with it. Owing to the eccentric position of the axle 32 relative to the shell 12, the length by which the fingers 16 project out of the shell 12 depends on the respective rotary position of the fingers 16. See page 4, lines 26-28, page 5, lines 11-13, 20-31, and page 6, lines 1-2 of the specification.

### **Issue**

Is it obvious to a person having ordinary skill in the art to modify the invention taught in one reference with an element taught in a second reference, while ignoring an additional element required by the second reference to make it work, without an underlying teaching of the advantages of making this modification?

### **Grouping of Claims**

All of the rejected claims 1-4, 7-10, and 12-17 should stand or fall together.

### **Argument**

The examiner rejected claims 1-4, 7-10, and 12-17, under 35 U.S.C. § 103, as being obvious over White (US 2,748,921) in light of Bautz (FR 1,495,238). The examiner relies on White as the primary reference, teaching a rotary conveyor having a rotatable drum-shaped shell with openings, a non-rotating eccentric axle inside the shell, finger supports rotatively mounted parallel to the eccentric axle by a bearing element, and a plurality of fingers on each support next to each other.

The examiner relies on Bautz as a secondary reference, teaching a rotary conveyor having finger supports attached to multiple bearing elements 11 that are fixed to an axle, which contrary to the examiner's asserted understanding, is concentric with the drum-shaped shell. Furthermore, to function at all, the Bautz finger supports require the use of an additional bearing element 5, not found in White, to support the finger supports.

The examiner contends that the combination of these two references establishes a prima facie case for obviousness, that at the time of filing, it would have been obvious to one of ordinary skill in the art to substitute the multiple bearing elements mounted to the concentric axle in Bautz for the single bearing element mounted to the eccentric shaft in White to form the claimed invention.

Applicant asserts that claims 1-4, 7-10, and 12-17 are not obvious over the cited and applied art. The Federal Circuit stated the standard for prima facie obviousness during patent prosecution in In re Fritch, 972 F.2d 1260:

In proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art. The Examiner can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. [at 1265]

Obviousness cannot be established by combining the teachings of the prior art

to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined *only* if there is some suggestion or incentive to do so.....The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. [at 1266]

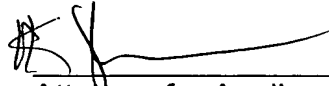
It is impermissible to use the claimed invention as an instruction manual or "template" to pieced together the teachings of the prior art so that the claimed invention is rendered obvious.....one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. [at 1265]

In rejecting claims 1-4, 7-10, and 12-17 as unpatentable under 35 U.S.C. § 103, the examiner cites no objective teaching in the prior art suggesting the desirability for substituting the multiple bearing elements mounted to the concentric axle in Bautz for the single bearing element mounted to the eccentric shaft in White. Furthermore, applicant asserts that the examiner has relied upon hindsight, using the subject application as a template to pick and choose the multiple bearing elements 11 from Bautz to modify the White invention, while ignoring and failing to apply the required bearing element 5 without which the Bautz invention cannot function.

Thus, in rejecting claims 1-4, 7-10, and 12-17, applicant respectfully insists that the examiner has failed to meet his burden of proof to establish prima facie obviousness as required by In re Fritch, and that absent a prima facie showing of obviousness, said claims should be allowed as amended. Reversal of the rejection is therefore respectfully requested.

Any fees or charges due under 37 CFR 1.17(f) or otherwise due as a result of filing of the present paper may be charged against Deposit Account 04-0525. Two duplicates of this page are enclosed.


Respectfully,

  
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Deere & Company

  
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Signature Date 2 September 2003

## **Appendix**

1. A rotary conveyor comprising:
  - a drum-shaped shell having openings;
  - an eccentric axle arranged inside the shell, the eccentric axle defining an axial direction;
  - finger supports being rotatively mounted to the eccentric axle, each finger support is rotatively mounted to the eccentric axle by several annular bearings spaced apart in the axial direction along the eccentric axle, the finger supports extend radially outward from and parallel to the eccentric axle;
  - a plurality of fingers are mounted to each finger support, the fingers extending through the openings in the drum-shaped shell such that fingers on one finger support are arranged next to one another in the axial direction, the finger supports are distributed around the circumference of the eccentric axle, whereby the finger supports extend axially within a portion of the drum-shaped shell having openings for the fingers.
2. A rotary conveyor as defined by claim 1 wherein that portion of the shell having fingers is provided with three finger supports that are distributed along the eccentric axle.
3. A rotary conveyor as defined by claim 1 wherein the finger supports are offset relative to one another in the axial direction.
4. A rotary conveyor as defined by claim 3 wherein the finger supports are identical to one another.
7. A rotary conveyor as defined by claim 4 wherein the fingers are removably attached to the finger supports.
8. A rotary conveyor as defined by claim 7 wherein the fingers are screwed into threaded openings in the finger supports.
9. A rotary conveyor as defined by claim 8 wherein the fingers are secured on the finger supports by locking nuts.
10. A rotary conveyor comprising:
  - a rotatable drum-shaped shell having openings;

a non-rotating eccentric axle arranged inside the shell, the non-rotating eccentric axle defining an axial direction;

finger supports being rotatively mounted to the non-rotating eccentric axle, each finger support is rotatively mounted to the non-rotating eccentric axle by at least two annular bearings, the finger supports extend radially outward from and parallel to the non-rotating eccentric axle;

a plurality of fingers are mounted to each finger support, the fingers extending through the openings in the drum-shaped shell such that fingers on one finger support are arranged next to one another in the axial direction.

12. A rotary conveyor as defined by claim 10 wherein the finger supports are offset relative to one another in the axial direction.

13. A rotary conveyor as defined by claim 12 wherein the finger supports are identical to one another.

14. A rotary conveyor as defined by claim 10 wherein the fingers are removably attached to the finger supports.

15. A rotary conveyor as defined by claim 14 wherein the fingers are screwed into threaded openings in the finger supports.

16. A rotary conveyor as defined by claim 15 wherein the fingers are secured on the finger supports by locking nuts.

17. A rotary conveyor comprising:

a rotatable shell having openings;

a non-rotating eccentric axle arranged inside the shell;

finger supports being rotatively mounted to the non-rotating eccentric axle, each finger support is rotatively mounted to the non-rotating eccentric axle by at least two bearings-axially spaced along the non-rotating eccentric axle, the finger supports extend radially outward from and parallel to the non-rotating eccentric axle, the finger supports being located inside the rotatable shell;

a plurality of fingers are mounted to each finger support, the fingers extending through

the openings in the shell.